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EXAMINER

GOETZE, SIMON A

ART UNIT

PAPER NUMBER

2617

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PAPER

**Please find below and/or attached an Office communication concerning this application or proceeding.**

The time period for reply, if any, is set in the attached communication.

<b>Office Action Summary</b>	<b>Application No.</b> 10/658,483	<b>Applicant(s)</b> KIM ET AL.	
	<b>Examiner</b> SIMON A. GOETZE	<b>Art Unit</b> 2617	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

### Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

### Status

- 1) ☒ Responsive to communication(s) filed on 01 April 2008.
- 2a) ☐ This action is **FINAL**.                      2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

### Disposition of Claims

- 4) ☒ Claim(s) 1-18, 20-24 and 28 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1-18, 20-24 and 28 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

### Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 09 September 2003 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

### Priority under 35 U.S.C. § 119

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All    b) ☐ Some \*    c) ☐ None of:
1. ☒ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

### Attachment(s)

- |  |   |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892)            | 4) <input type="checkbox"/> Interview Summary (PTO-413)           |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948)   | Paper No(s)/Mail Date. _____                                      |
| 3) <input checked="" type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08) | 5) <input type="checkbox"/> Notice of Informal Patent Application |
| Paper No(s)/Mail Date <u>4/1/2008 &amp; 4/8/2008</u> .                                 | 6) <input type="checkbox"/> Other: _____                          |

## **DETAILED ACTION**

### ***Continued Examination Under 37 CFR 1.114***

A request for continued examination under 37 CFR 1.114, including the fee set forth in 37 CFR 1.17(e), was filed in this application after final rejection. Since this application is eligible for continued examination under 37 CFR 1.114, and the fee set forth in 37 CFR 1.17(e) has been timely paid, the finality of the previous Office action has been withdrawn pursuant to 37 CFR 1.114. Applicant's submission filed on April 1, 2008 has been entered.

### ***Information Disclosure Statement***

Regarding Applicant's concern that the previous IDS had not been acknowledged by the Examiner, the Examiner notes that there has been a slight change in the processing of these forms and the bottom is notated "ALL REFERENCES CONSIDERED EXCEPT WHERE LINED THROUGH," as opposed to initialing each reference. Additionally, the Examiner has considered the IDSs filed April 1, 2008 and April 8, 2008.

### ***Claim Rejections - 35 USC § 103***

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

The factual inquiries set forth in *Graham v. John Deere Co.*, 383 U.S. 1, 148 USPQ 459 (1966), that are applied for establishing a background for determining obviousness under 35 U.S.C. 103(a) are summarized as follows:

1. Determining the scope and contents of the prior art.
2. Ascertaining the differences between the prior art and the claims at issue.
3. Resolving the level of ordinary skill in the pertinent art.
4. Considering objective evidence present in the application indicating obviousness or nonobviousness.

This application currently names joint inventors. In considering patentability of the claims under 35 U.S.C. 103(a), the examiner presumes that the subject matter of the various claims was commonly owned at the time any inventions covered therein were made absent any evidence to the contrary. Applicant is advised of the obligation under 37 CFR 1.56 to point out the inventor and invention dates of each claim that was not commonly owned at the time a later invention was made in order for the examiner to consider the applicability of 35 U.S.C. 103(c) and potential 35 U.S.C. 102(e), (f) or (g) prior art under 35 U.S.C. 103(a).

1. **Claims 1-18 and 20-24** are rejected under 35 U.S.C. 103(a) as being unpatentable over **Chen et al. (US Patent Application Publication 2002/0181423)** in view of **Leung et al. (US patent Application Publication 2003/0087653)**.

Consider **claim 1**, Chen et al. discloses a method for providing an interactive data service between a base station and at least one mobile station in a mobile communication system including the at least one mobile station, the base station communicating with the at least one mobile station, and a server connected to the base station, the server providing data to the at least

one mobile station (*Figure 1 – Abstract; Page 2, Paragraph 0013*), the method comprising the steps of:

transmitting, by the base station, data transmitted from the server, to the at least one mobile station over a forward common channel all mobile stations can receive in common during the interactive data service (*Figure 1 – base station transmits data to all members of a group – Page 2, Paragraph 0020; Page 3, Paragraph 0039; Page 4, Paragraph 0040; Page 5, Paragraphs 0049 and 0054*); and

transmitting a reverse control data over a dedicated channel for data transmission, by a serviced mobile station, receiving a service through the forward common channel during the interactive data service (*reverse channel information is sent – Page 3, Paragraph 0039; Page 6, Paragraph 0058*).

However, Chen et al. discloses providing transmission data from network elements, not a server.

In related prior art Leung et al. discloses providing a broadcast service to multiple users from a server (*Figure 5, CS 326 – Abstract; Page 4, Paragraph 0052; Page 10, Paragraphs 0110-0111*).

It would have been obvious to a person having ordinary skill in the art at the time the invention was made to incorporate the teachings of Leung et al. with those of Chen et al. in order to provide the most effective use of network resources while providing broadcast content.

Consider **claim 2**, as applied to claim 1 above, Chen et al. as modified by Leung et al. discloses that the base station provides a broadcast service through the forward common channel

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*(Page 2, Paragraph 0020; Page 3, Paragraph 0039; Page 4, Paragraph 0040; Page 5, Paragraphs 0049 and 0054).*

Consider **claim 3**, as applied to claim 1 above, Chen et al. as modified by Leung et al. discloses that the base station transmits to the at least one mobile station assignment information of a multicast fundamental channel for transmitting forward broadcast information *(Page 3, Paragraph 0039; Page 4, Paragraph 0042; Page 5, Paragraph 0049)*, assignment information of a common assignment channel for transmitting a response message for the reverse data *(Page 3, Paragraph 0039; Page 6, Paragraph 0058)*, assignment information of a common power control channel for transmitting power control information of a reverse dedicated channel *(Page 3, Paragraph 0039; Page 6, Paragraph 0058)*, and assignment information for identifying the service mobile station and assigning a reverse power channel *(Page 3, Paragraph 0039; Page 6, Paragraph 0058)*.

Consider **claim 4**, as applied to claim 3 above, Chen et al. as modified by Leung et al. discloses that the base station transmits reverse power control information to the at least one mobile station over a common power control channel *(Page 3, Paragraph 0039; Page 4, Paragraph 0048; Page 5, Paragraph 0049; Page 6, Paragraph 0058)*.

Consider **claim 5**, as applied to claim 3 above, Chen et al. as modified by Leung et al. discloses that the serviced mobile station transmits a power control bit to the base station over the reverse dedicated channel as power control information for one of the common power control channel, a forward dedicated control channel, and the common assignment channel *(Page 3, Paragraph 0039; Page 6, Paragraph 0058)*.

Consider **claim 6**, as applied to claim 1 above, Chen et al. as modified by Leung et al. discloses the further step of transmitting, from the base station to the at least one mobile station, reverse power control information via a common power control channel and forward data via a forward dedicated control channel (*Page 3, Paragraph 0039; Page 4, Paragraph 0040; Page 5, Paragraph 0049; Page 6, Paragraph 0058*).

Consider **claim 7**, as applied to claim 1 above, Chen et al. as modified by Leung et al. discloses the further step of transmitting, from the base station to the at least one mobile station, reverse power control information via a common power channel and a control message to be delivered to a particular mobile station or a response message for reverse data a time-sharing common assignment channel or dedicated control channel (*Page 3, Paragraph 0039; Page 4, Paragraph 0040 and 0047; Page 5, Paragraph 0049; Page 6, Paragraph 0058*).

Consider **claim 8**, as applied to claim 1 above, Chen et al. as modified by Leung et al. discloses the further step of setting up, from the mobile station to the base station, a reverse fundamental channel, a dedicated control channel, and a supplemental channel (*Page 7, Paragraphs 0070-0072*).

Consider **claim 9**, Chen et al. discloses a method for providing an interactive data service between a base station and at least one mobile station in a mobile communication system including a plurality of mobile stations, the base station communicating with the plurality of mobile stations, and a network element connected to the base station, the network element providing data to the plurality of mobile stations (*Figure 1 – Abstract; Page 2, Paragraph 0013*), the method comprising the steps of:

upon receiving a service request from at least one of the plurality of mobile stations, setting up, by the base station, a connection to the at least one plurality of mobile stations and opening a session for the requested service between the base station and the network element (*service initiated when the group is active – Page 3, Paragraphs 0038-0039; Page 7, Paragraphs 0071 and 0075*);

transmitting, by the base station, service data transmitted from the network element, to the at least one of the plurality of mobile stations over a forward dedicated channel during the interactive data service (*Figure 1 – base station transmits data to all members of a group – Page 2, Paragraph 0020; Page 3, Paragraph 0039; Page 4, Paragraph 0040; Page 5, Paragraphs 0049 and 0054*);

simultaneously transmitting, by the base station, service data to be provided from the server to the at least one of the plurality of mobile stations over a common channel during the interactive data service, and transmitting reverse transmission data over respective dedicated channels by the at least one of the plurality mobile stations receiving the service through the common channel during the interactive data service (*Figure 1 – base station transmits data to all members of a group over a common channel with a dedicated reverse channel set up – Page 2, Paragraph 0020; Page 3, Paragraph 0039; Page 4, Paragraph 0040; Page 5, Paragraphs 0049 and 0054*).

However, while Chen et al. disclose transmitting data to a group of users over a common channel because of network capacity issues, these users having a dedicated reverse channel, they fail to disclose that data is transmitted to users on a dedicated channel until a set threshold of users is crossed.



In related prior art, Leung et al. discloses comparing, by a server, a number of the at least one of the plurality of mobile stations requesting the service with a predetermined threshold and if the number of the at least one of the plurality of mobile stations requesting the service is larger than the predetermined threshold transmitting data to a group of users over a common channel *(once a threshold of users is crossed, data is transmitted over a broadcast channel to multiple users – Figures 15A, 15B, and 16 – Page 1, Paragraphs 0009 and 0012; Page 10, Paragraphs 0100-0111; Page 11, Paragraphs 0113-0114).*

It would have been obvious to a person having ordinary skill in the art at the time the invention was made to incorporate the teachings of Leung et al. with those of Chen et al. in order to reduce the strain on the network because a network can be overwhelmed allocating channels and bandwidth to large amounts of users independently.

Consider **claim 10**, as applied to claim 9 above, Chen et al. as modified by Leung et al. discloses that the base station provides a broadcast service through the common channel *(Page 2, Paragraph 0020; Page 3, Paragraph 0039; Page 4, Paragraph 0040; Page 5, Paragraphs 0049 and 0054).*

Consider **claim 11**, as applied to claim 9 above, Chen et al. as modified by Leung et al. discloses that the base station transmits information about a common channel and a handoff direction message, to the at least one of the plurality of mobile stations *(Page 3, Paragraph 0039; Page 4, Paragraph 0047-0048; Page 7, Paragraph 0071).*

Chen et al. as modified by Leung et al. above discloses information for changing a forward data transmission channel from a dedicated channel to a common channel *(Leung et al. -*

*Page 1, Paragraphs 0009 and 0012; Page 10, Paragraphs 0100-0111; Page 11, Paragraphs 0113-0114).*

Consider **claim 12**, as applied to claim 11 above, Chen et al. as modified by Leung et al. discloses that the handoff direction message includes multicast fundamental channel assignment information (*Page 3, Paragraph 0039; Page 4, Paragraphs 0042 and 0047; Page 5, Paragraph 0049*), common assignment channel assignment information for transmitting a response message for reverse data (*Page 3, Paragraph 0039; Page 6, Paragraph 0058*), common power control channel assignment information for transmitting power control information of a reverse dedicated channel (*Page 3, Paragraph 0039; Page 6, Paragraph 0058*), and information for identifying the mobile station requesting the service and assigning a reverse power control channel (*Page 3, Paragraph 0039; Page 4, Paragraph 0047; Page 6, Paragraph 0058*).

Consider **claim 13**, as applied to claim 11 above, Chen et al. as modified by Leung et al. discloses that the base station transmits reverse power control information to the at least one of the plurality of mobile stations over a common power control channel (*Page 3, Paragraph 0039; Page 4, Paragraph 0048; Page 5, Paragraph 0049; Page 6, Paragraph 0058*).

Consider **claim 14**, as applied to claim 12 above, Chen et al. as modified by Leung et al. discloses that the mobile station requesting the service transmits a power control bit to the base station over a reverse dedicated channel as power control information for one of a common power control channel, a forward dedicated control channel, and a common assignment channel (*Page 3, Paragraph 0039; Page 6, Paragraph 0058*).

Consider **claim 15**, as applied to claim 9 above, Chen et al. as modified by Leung et al. discloses that the base station transmits to the at least one of the plurality of mobile stations a

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release command message for changing a data transmission channel from the base station to the mobile station, from a dedicated channel to a common channel (*Leung et al. - Page 1, Paragraphs 0009 and 0012; Page 10, Paragraphs 0100-0111; Page 11, Paragraphs 0113-0114*).

Consider **claim 16**, Chen et al. discloses a method for releasing an interactive data service between a base station and a mobile station in a mobile communication system including a plurality of mobile stations, the base station communicating with the plurality of mobile stations, and a network element connected to the base station (*Figure 1 – Abstract; Page 2, Paragraph 0013*), comprising the steps of:

transmitting, by the base station, service data to be transmitted from the network element to the plurality of mobile stations, to at least one of the plurality of mobile stations over a common channel, and transmitting reverse transmission data over respective dedicated channels by at least one of the plurality of mobile stations receiving a service through the common channel during the interactive data service (*Figure 1 – base station transmits data to all members of a group over a common channel with a dedicated reverse channel set up – Page 2, Paragraph 0020; Page 3, Paragraph 0039; Page 4, Paragraph 0040; Page 5, Paragraphs 0049 and 0054*);

transmitting by the base station service data provided from the server to at least one of the at least one of the plurality of mobile stations requesting the service over a common channel during the interactive data service (*Page 2, Paragraph 0020; Page 3, Paragraph 0039; Page 4, Paragraph 0040; Page 5, Paragraphs 0049 and 0054*); and

releasing by the base station a session opened for a service between the base station and the server, if all of the at least one of the plurality of mobile stations receiving the service finish the service reception (*Page 3, Paragraph 0037; Page 4, Paragraph 0041*).

However, while Chen et al. disclose transmitting data to a group of users over a common channel because of network capacity issues, these users having a dedicated reverse channel, they fail to disclose comparing, by the server, a number of the at least one of the plurality of mobile stations receiving the service with a predetermined threshold, while providing the service data and if the number of the at least one of the plurality of mobile stations receiving the service data provided over the common channel is smaller than the threshold.

In related prior art, Leung et al. disclose comparing, by the server, a number of the at least one of the plurality of mobile stations receiving the service with a predetermined threshold, while providing the service data (*Page 1, Paragraphs 0009 and 0012; Page 10, Paragraphs 0100-0111; Page 11, Paragraphs 0113-0114*) and if the number of the at least one of the plurality of mobile stations receiving the service data provided over the common channel is smaller than the threshold (*use dedicated channels when the number of users is below the threshold – Page 11, Paragraph 0115*).

It would have been obvious to a person having ordinary skill in the art at the time the invention was made to incorporate the teachings of Leung et al. with those of Chen et al. in order to provide the most effective use of network resources.

Consider **claim 17**, as applied to claim 16 above, Chen et al. as modified by Chen et al. discloses that the base station provides a broadcast service through the common channel (*Page 2,*

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*Paragraph 0020; Page 3, Paragraph 0039; Page 4, Paragraph 0040; Page 5, Paragraphs 0049 and 0054).*

Consider **claim 18**, Chen et al. discloses a method for providing an interactive data service between a base station and a plurality of mobile stations in a mobile communication system including the plurality of mobile stations, the base station communicating with the plurality of mobile stations, and a network element connected to the base station (*Figure 1 – Abstract; Page 2, Paragraph 0013*), comprising the steps of:

upon receiving a service request from a first mobile station, setting up, by the base station, a connection to the first mobile station, and shifting a state with the first mobile station to a traffic state (*service initiated when the group is active – Page 3, Paragraphs 0038-0039; Page 7, Paragraphs 0071 and 0075*);

opening, by the base station, a session for the requested service between the base station and the network element, registering the first mobile station in the requested service, and shifting the state with the first mobile station to a dormant state (*when no users are participating, they are in dormant state – Page 4, Paragraph 0041*);

upon receiving a service request from a second mobile station in the dormant state (*Page 3, Paragraph 0037*), paging, by the server, the first mobile station via the base station (*group becomes active, users paged as notification of service – Page 3, Paragraph 0038; Page 5, Paragraph 0053*);

assigning, by the base station, a forward common channel and a reverse dedicated channel between the base station and the first mobile station (*Page 3, Paragraph 0039; Page 6, Paragraph 0058*); and

transmitting, by the base station, service data transmitted from the network element, to the first mobile station over the assigned forward common channel, and transmitting by the first mobile station service data to be transmitted in a reverse direction over the assigned dedicated channel during the interactive data service (*Figure 1 – base station transmits data to all members of a group over a common channel with a dedicated reverse channel set up – Page 2, Paragraph 0020; Page 3, Paragraph 0039; Page 4, Paragraph 0040; Page 5, Paragraphs 0049 and 0054*).

However, Chen et al. discloses providing transmission data from network elements, not a server.

In related prior art Leung et al. discloses providing a broadcast service to multiple users from a server (*Figure 5, CS 326 – Abstract; Page 4, Paragraph 0052; Page 10, Paragraphs 0110-0111*).

It would have been obvious to a person having ordinary skill in the art at the time the invention was made to incorporate the teachings of Leung et al. with those of Chen et al. in order to provide the most effective use of network resources while providing broadcast content.

Consider **claim 20**, Chen et al. discloses a method for providing an interactive data service between a base station and a mobile station in a mobile communication system including the mobile station, the base station communicating with the mobile station, and a network

element connected to the base station (*Figure 1 – Abstract; Page 2, Paragraph 0013*),  
comprising the steps of:

setting up, by the base station, a connection to the mobile station and shifting a state with the mobile station to a traffic state, if a data transmission request to the server is received from the mobile station receiving service data provided from the server, from the base station over a common channel (*service initiated when the group is active – Page 3, Paragraphs 0038-0039; Page 7, Paragraphs 0071 and 0075*);

opening, by the base station, a session for the requested data transmission between the base station and the network element (*service initiated when the group is active – Page 3, Paragraphs 0038-0039; Page 7, Paragraphs 0071 and 0075*);

assigning, by the base station, a reverse dedicated channel between the base station and the mobile station (*Page 3, Paragraph 0039; Page 6, Paragraph 0058*); and

transmitting, by the mobile station, service data to be transmitted in a reverse direction, over the assigned dedicated channel during the interactive data service (*Figure 1 – base station transmits data to all members of a group over a common channel with a dedicated reverse channel set up – Page 2, Paragraph 0020; Page 3, Paragraph 0039; Page 4, Paragraph 0040; Page 5, Paragraphs 0049 and 0054*).

However, Chen et al. discloses providing transmission data from network elements, not a server.

In related prior art Leung et al. discloses providing a broadcast service to multiple users from a server (*Figure 5, CS 326 – Abstract; Page 4, Paragraph 0052; Page 10, Paragraphs 0110-0111*).

It would have been obvious to a person having ordinary skill in the art at the time the invention was made to incorporate the teachings of Leung et al. with those of Chen et al. in order to provide the most effective use of network resources while providing broadcast content.

Consider **claim 21**, as applied to claim 20 above, Chen et al. as modified by Leung et al. discloses that the base station provides a broadcast service through the common channel (*Page 2, Paragraph 0020; Page 3, Paragraph 0039; Page 4, Paragraph 0040; Page 5, Paragraphs 0049 and 0054*).

Consider **claim 22**, Chen et al. discloses a method for providing an interactive data service between a base station and a mobile station in a mobile communication system including the mobile station, the base station communicating with the mobile station, and a network element connected to the base station (*Figure 1 – Abstract; Page 2, Paragraph 0013*), comprising the steps of:

receiving, by the mobile station, radio resource information for the interactive data service from the base station (*Figure 1 – base station transmits data to all members of a group – Page 2, Paragraph 0020; Page 3, Paragraph 0039; Page 4, Paragraph 0040; Page 5, Paragraphs 0049 and 0054*);

sending, by the mobile station, an interactive data service request to the base station using the received information (*mobile station transmits to the base station over the assigned channel – Page 3, Paragraph 0039; Page 7, Paragraph 0071 and 0075*);



setting up, by the base station, a connection to the mobile station, and shifting a state with the mobile station to a traffic state (*service initiated when the group is active – Page 3, Paragraphs 0038-0039; Page 7, Paragraphs 0071 and 0075*);

opening, by the base station, a session for the requested service between the base station and the server (*service initiated when the group is active – Page 3, Paragraphs 0038-0039; Page 7, Paragraphs 0071 and 0075*);

assigning, by the base station, a forward common channel and a reverse dedicated channel between the base station and the mobile station (*Page 3, Paragraph 0039; Page 4, Paragraph 0040; Page 5, Paragraphs 0049 and 0054*);

transmitting, by the base station, service data to be provided from the server to the mobile station, to the mobile station over the assigned common channel during the interactive data service (*Page 2, Paragraph 0020; Page 3, Paragraph 0039; Page 4, Paragraph 0040; Page 5, Paragraphs 0049 and 0054*); and

transmitting, by the mobile station, service data to be provided from the mobile station to the network element, to the base station over the assigned dedicated channel during the interactive data service (*Page 3, paragraphs 0038-0039; Page 6, Paragraph 0058*).

However, Chen et al. discloses providing transmission data from network elements, not a server.

In related prior art Leung et al. discloses providing a broadcast service to multiple users from a server (*Figure 5, CS 326 – Abstract; Page 4, Paragraph 0052; Page 10, Paragraphs 0110-0111*).

It would have been obvious to a person having ordinary skill in the art at the time the invention was made to incorporate the teachings of Leung et al. with those of Chen et al. in order to provide the most effective use of network resources while providing broadcast content.

Consider **claim 23**, as applied to claim 22 above, Chen et al. as modified by Leung et al. discloses that the base station provides a broadcast service through the common channel (*Page 2, Paragraph 0020; Page 3, Paragraph 0039; Page 4, Paragraph 0040; Page 5, Paragraphs 0049 and 0054*).

Consider **claim 24**, as applied to claim 22 above, Chen et al. as modified by Leung et al. discloses that the radio resource information comprises logical-to-physical mapping information (LPM), multiplexing rule information, and multicast service reference identifier (MSR\_ID) information according to multicast fundamental channels (M-FCH) (*part of the data transmitted to the mobile station in order to be able to participate in the broadcast - Page 3, Paragraph 0039; Page 4, Paragraph 0040; Page 5, Paragraphs 0049 and 0054*).

2. **Claim 28** is rejected under 35 U.S.C. 103(a) as being unpatentable over **Chen et al. (US Patent Application Publication 2002/0181423)** in view of **Leung et al. (US patent Application Publication 2003/0087653)** further in view of **Alao et al. (US Patent Application Publication 2008/0075099)**.

Consider **claim 28**, Chen et al. discloses a method for providing an interactive data service between a base station and at least one mobile station in a mobile communication system including the at least one mobile station, the base station communicating with the at least one mobile station, and a server connected to the base station, the server providing data to the at least

one mobile station (*Figure 1 – Abstract; Page 2, Paragraph 0013*), the method comprising the steps of:

transmitting, by the base station, data transmitted from the server, to the at least one mobile station over a forward common channel all mobile stations can receive in common during the interactive data service (*Figure 1 – base station transmits data to all members of a group – Page 2, Paragraph 0020; Page 3, Paragraph 0039; Page 4, Paragraph 0040; Page 5, Paragraphs 0049 and 0054*); and

transmitting a reverse control data over a dedicated channel for data transmission, by a serviced mobile station, receiving a service through the forward common channel during the interactive data service (*reverse channel information is sent – Page 3, Paragraph 0039; Page 6, Paragraph 0058*).

However, Chen et al. discloses providing transmission data from network elements, not a server.

In related prior art Leung et al. discloses providing a broadcast service to multiple users from a server (*Figure 5, CS 326 – Abstract; Page 4, Paragraph 0052; Page 10, Paragraphs 0110-0111*).

It would have been obvious to a person having ordinary skill in the art at the time the invention was made to incorporate the teachings of Leung et al. with those of Chen et al. in order to provide the most effective use of network resources while providing broadcast content.

However, while Chen et al. as modified by Leung et al. discloses an interactive broadcast system they fail to specifically disclose that the base station transmits information regarding the segment size of the broadcast to the user.

In related prior art, Alao et al. discloses an interactive broadcast system that notifies the recipient of the size of the segment of data (*Abstract; Page 8, Paragraph 0087; Page 11, Paragraph 0114*).

It would have been obvious to a person having ordinary skill in the art at the time the invention was made to incorporate the teachings of Alao et al. with those of Chen et al. as modified by Leung et al. so that the recipient is aware of the size of the broadcast they are going to receive to allow for the appropriate accommodations to be made.

### ***Response to Arguments***

1. Applicant's arguments filed April 1, 2008 have been fully considered but they are not persuasive.
2. Regarding Applicant's arguments that Leung et al. destroys Chen et al., the Examiner respectfully disagrees. Initially, Leung et al. was not relied upon to teach the bidirectional aspects which are covered by Chen et al. Additionally, while Leung et al. discloses a unidirectional broadcast, they don't explicitly teach against a bidirectional broadcast. Therefore, the Examiner does not feel that Leung et al. has destroyed the Chen et al. reference.
3. Applicant's arguments with regards to newly added claim 28 have been addressed above by the rejection.

***Conclusion***

1. Any response to this Office Action should be **faxed to (571) 273-8300 or mailed to:**

Commissioner for Patents  
P.O. Box 1450  
Alexandria, VA 22313-1450

**Hand-delivered responses** should be brought to

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Randolph Building  
401 Dulany Street  
Alexandria, VA 22314

2. Any inquiry concerning this communication or earlier communications from the Examiner should be directed to Simon A. Goetze whose telephone number is (571) 270-1113.

The Examiner can normally be reached on Monday-Friday from 8:30am to 5:00pm.

If attempts to reach the Examiner by telephone are unsuccessful, the Examiner's supervisor, Paul Harper can be reached on (571) 272-7605. The fax phone number for the organization where this application or proceeding is assigned is (571) 273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free) or 703-305-3028.

Art Unit: 2617

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist/customer service whose telephone number is (571) 272-2600.

/VINCENT P. HARPER/  
Supervisory Patent Examiner, Art Unit 2617

*/Simon A. Goetze/  
Examiner, Art Unit 2617*

June 6, 2008